

**REMARKS**

Applicants respectfully request reconsideration of the application.

**Grounds of Rejection to be Reviewed**

Claims 4, 18-24 and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,960,081 by Vynne et al. ("Vynne").

Claims 2, 14-15, 20, 22, 29-30 and 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,389,421 to Hawkins et al. ("Hawkins").

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vynne.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins in view of U.S. Patent No. 6,374,336 to Peters et al. ("Peters").

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vynne in view of U.S. Patent No. 6,473,516 to Kawaguchi et al. ("Kawaguchi").

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,611,830 to Shinoda in view of Vynne.

**Claims 4, 18-24 and 26-28 are not anticipated by Vynne****Claim 4**

Claim 4 recites: "performing parallel digital watermark operations on the prioritized segments in the parallel processors according to priority order of the prioritized segments." Since this passage positively refers to "performing parallel digital watermark operations on the prioritized segments," it refers only to the segments that are in fact operated upon. In contrast, Vynne's non-suitable blocks are explicitly not selected nor operated upon as claimed. The non-selected blocks in Vynne do not correspond to "the prioritized segments." Vynne does not perform parallel digital watermarking operations on the suitable blocks in the parallel processors according to a priority order.

As amended, claim 4 further clarifies that it is the prioritized segments that are distributed to the parallel processors. Vynne does not teach prioritizing the segments before distributing them to the parallel processors.

Further, as emphasized above, Vynne's "non-suitable" blocks do not correspond to the claimed "prioritized segments" because no watermark embedding is ever performed on these "non-suitable" blocks. In contrast, the claimed prioritized segments not only have embedding operations performed on them, but also have these operations performed on them in a priority order. In other words, the priority order applies to the prioritized segments, not "non-suitable" blocks.

#### Claims 18-19

Claim 18 is amended per the Examiner's suggestion, and therefore, should be allowable over the cited art.

Claim 19 is patentable over Vynne for at least the same reasons as claim 18.

#### Claim 20

The arguments provided previously are still valid. Vynne specifically states that: "Only one program exists, which is executed on all processors at the same time." Col. 26, lines 42-44. While different processors in Vynne may embed different data and a processor may have more or less blocks, it does not follow that Vynne teaches the elements of claim 20.

The Examiner notes that Vynne states that certain variables "are used to make the execution different on the different processors." Col. 26, lines 45-47. Vynne's different execution does not correspond to the claimed different watermark functions that are specifically recited as being performed in parallel by specific elements including the watermark generator and the perceptual analyzer as recited in amended claim 20.

Claim 22 is patentable for the same reasons as claim 20.

#### Claim 21

When construed in combination with claim 20, claim 21 recites that different watermark functions performed by modules comprising a watermark generator, a perceptual analyzer and watermark applicator are performed on the media signal in parallel. In contrast, Vynne teaches that the same program is executed on all processors at the same time. See Col. 26, lines 42-44.

Claims 23-24 and 26-28

Vynne's thresholds are not dependent on and automatically computed from the content of the media signal as recited in amended claim 23 in combination with the other elements. Therefore, they do not constitute a perceptual mask. Instead, Vynne teaches that the thresholds are derived manually and a common set of thresholds is derived that is used for different videos. As such, the thresholds are not dependent on a particular video and computed automatically from that video.

Claims 24 and 26-28 are patentable for at least the same reasons as claim 23.

Claims 2, 14-15, 20, 22, 29-30 and 32-33 are patentable over Hawkins

The Examiner's citations do not support the Examiner's position that "each job is a segment of a media signal." Further, Hawkins does not teach the amended elements of claims 2 and 14 in combination with the other elements of these claims. Specifically, Hawkins does not teach "sub-dividing the media signal into parts representing different perceptual portions within the signal" in combination with the other elements of claims 2, 14 and 29.

Hawkins does not teach the different watermark functions performed in parallel by the watermark generator and the perceptual analyzer of amended claim 20

Claim 2 is not obvious in view of VynneClaim 2

Vynne does not distribute "the specified parts to parallel processors after the specifying of the parts to be embedded with corresponding digital watermark messages" as recited in claim 2 in combination with the other claim elements. As described in the cited passage at col. 27, lines 6-19, Vynne distributes all of the blocks in the image to the processors. In equation 7.1, the numerator is  $m_b$ , the number of blocks in the image, and the denominator is NPES, the number of processors. It is not the suitable blocks that are divided among the processors, but instead, all of the blocks in the image. Only after distributing all of the blocks, each processor selects "suitable" blocks for watermarking or not. The Examiner has now accepted Applicants position to reduce the arguments, which is greatly appreciated.

However, the Examiner still seems to contend that Vynne's identification of suitable and non-suitable blocks corresponds to "performing parallel digital watermark operations on the

prioritized segments in the parallel processors according to priority order of the prioritized segments.” This is incorrect because non-suitable blocks are not operated on further. As amended, claim 2 recites: “performing parallel digital watermark embedding operations on the prioritized segments in the parallel processors according to priority order of the prioritized segments.” Since the non-suitable blocks are not embedded, they cannot correspond to at least this aspect of claim 2. As such, Vynne does not teach or suggest all of the elements of claim 2.

Claim 16 is patentable over Hawkins in view of Peters as argued previously. This claim is further patentable over the combination in view of the amendment to claim 14.

Claim 17 is patentable over Vynne in view of Kawaguchi as argued previously.

Claim 34 is patentable over Shinoda in view of Vynne as argued previously. A review of the Examiner’s recent citation of Shinoda at col. 3, lines 7-50 reveals that there is no support for the position that Shinoda teaches grouping web pages as a job.


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